

## Chimney draft measurements: how to.

Links to chimney operation explanations and to required draft measurement tools.

<http://www.soliftec.com/chimneyeffect.htm> Physics of chimneys.

<https://www.trutechtools.com/5630510> link to a digital manometer we use.

A magnahelic with a scale of less than .25" w.c is an alternate instrument. Dwyer model 2000-00 is the correct one. Usually just under \$100.

<https://www.dwyer-inst.com/Product/Pressure/DifferentialPressure/Gages/Series2000>

You will need to drill a hole in the connector between approximately 18" to 24" above the stove and below any draft regulator or damper if installed. Any draft regulator installed should be in the full open position for this test.

A section of straight wall pipe that could be installed and then replaced after and used again in other installations would be a good idea.

Before inserting the probe be sure to **zero the meter** with the hose and probe connected. Silicon hose is recommended as the probe will get hot.

The required hole should be just big enough to insert a stainless or steel tube probe into the flue so that it's end is at the center of the flue, perpendicular to the flow of exhaust products.

Light the stove. Burn it on full open setting for at least an hour and then insert the probe, keeping it in the center of the flue and perpendicular to the stream.

Measure the draft. It should be about 0.08 - 0.09" water column (or equivalent) or lower with the stove hot and on full open setting with a burning fuel load.

Any higher than 0.12" wc and the unit is over drafting and that will result in eventual damage.

Close the stove air control and the draft should drop, open the stove door and the draft should drop. This is due to the change in pressure inside the firebox.

An inline draft (key) damper may help slow a chimney with too high a draft. Most chimney connector manufacturers make them for their connectors.

